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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/529,653

11/10/2005

Tadashi Maruno

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09/06/2007

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EXAMINER

BOOSALIS, FANI POLYZOS

ART UNIT

PAPER NUMBER

2884

MAIL DATE

DELIVERY MODE

09/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,653

Applicant(s)

MARUNO ET AL.

Examiner

Faye Boosalis

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Comment on Submissions

1. This communication is responsive to submissions 23 May 2007.
2. Claim 4 has been cancelled.

Response to Arguments

3. Applicant's arguments, see pages 4-6, filed 23 May 2007, with respect to the rejection(s) of claim(s) 1-5 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of *Talmi et al* (US 5,821,547) and *Johnson et al* (US 6,037,584 A).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Talmi et al* (US 5,821,547) in view of *Fukui et al* (US 6,005,618 A).

Regarding claims 1-2, *Talmi* discloses a fluorescence measuring apparatus for emitting a plurality of excitation pulse components (synchronized signals) towards a specimen (304) (sample chamber) and for measuring fluorescent components emitted from the specimen corresponding to the respective excitation pulse components (See Generally Fig. 3 and col. 4, lines 18-34), the fluorescence measuring apparatus

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comprising: a photoelectric converter (306) for implementing photoelectric conversion of a fluorescent component emitted from the specimen (305) (See Generally Fig. 3 and col. 4, lines 49-57); a charge storage element (307) for storing a charge resulting from the photoelectric conversion by the photoelectric converter and for transferring the charge stored (col. 5, lines 21-33); and a controller (302) arranged to transmit synchronizing signals to a laser source 303 for exciting the specimen (304). Talmi is silent with regards to the controller outputting electronic shutter signal and transfer signal consecutively before emission of the fluorescent component. Johnson discloses a scanner including a photodetector comprising: exposure control (70) including transfer gate signals (TG1-TG3) where the transfer signals are shutter control signals (i.e. controlling a signal charge storage time) for the CCD (48) (See Fig. 3, Abstract and col. 5, lines 1426). Thus, it would have been obvious to a person having ordinary skill in the art to modify Talmi et al. to use control consecutively the output signals of the electronic shutter and transfer signals to store only the necessary charge form, as taught by Johnson et al.

Regarding claims 2-3, Johnson discloses the controller outputs electronic shutter signal and the readout signal so as to enable measurement of identical waveform part in each fluorescent components (col. 4, lines 25-38).

Regarding claim 5, Johnson discloses wherein the charge storage element comprises a first charge storage element (i.e. register) (82) for directly receiving the charge from the converter, and a second charge storage element (86) for receiving the charge from the first charge storage element, and wherein the controller outputs the

transfer signal predetermined number of readout signal outputted, to the first charge storage element and outputs the transfer signal to the second charge storage element consecutively (col. 6, lines 30-38).


Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Boosalis whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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